=> d l9
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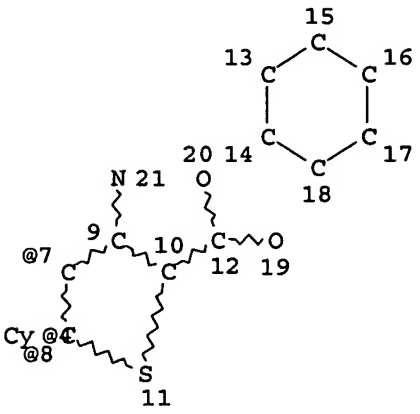

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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 14 8
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

=> s l9 ful
FULL SEARCH INITIATED 10:05:12 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 23720 TO ITERATE

100.0% PROCESSED 23720 ITERATIONS 323 ANSWERS
SEARCH TIME: 00.00.01

L11 323 SEA SSS FUL L9

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COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	336.52	336.73

FILE 'CAPLUS' ENTERED AT 10:05:17 ON 09 AUG 2006

FILE COVERS 1907 - 9 Aug 2006 VOL 145 ISS 7

FILE LAST UPDATED: 8 Aug 2006 (20060808/ED)

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http://www.cas.org/infopolicy.html

=> s l11
L12 8 L11

=> d bib abs 1-8

L12 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:410483 CAPLUS
DN 143:91635
TI Replication fitness and NS5B drug sensitivity of diverse hepatitis C virus isolates characterized by using a transient replication assay
AU Ludmerer, Steven W.; Graham, Donald J.; Boots, Evelyn; Murray, Edward M.; Simcoe, Amy; Markel, Eric J.; Grobler, Jay A.; Flores, Osvaldo A.; Olsen, David B.; Hazuda, Daria J.; LaFemina, Robert L.
CS Department of Antiviral Research, Merck Research Laboratories, West Point, PA, 19486, USA
SO Antimicrobial Agents and Chemotherapy (2005), 49(5), 2059-2069
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB The innate genetic variability characteristic of chronic hepatitis C virus (HCV) infection makes drug resistance a concern in the clin. development of HCV inhibitors. To address this, a transient replication assay was developed to evaluate the replication fitness and the drug sensitivity of NS5B sequences isolated from the sera of patients with chronic HCV infection. This novel assay directly compares replication between NS5B isolates, thus bypassing the potential sequence and metabolic differences which may arise with independent replicon cell lines. Patient-derived NS5B sequences were similar to those of the established HCV genotypes, but isolates from each patient shared genetic variability specific to that patient, with addnl. genetic variability observed across the individual isolates. Every sample provided functional NS5B isolates which supported subgenomic replication, frequently to levels comparable to that of laboratory-optimized replicons. All isolates were equivalently sensitive to an active-site nucleoside inhibitor, but the sensitivities to a panel of nonnucleoside inhibitors which targeted three distinct sites on NS5B varied among the isolates. In con1, the original laboratory-optimized replicon, the NS5B S282T substitution confers resistance to the nucleoside inhibitor but impairs replication. This substitution was engineered into both genotype 1a and genotype 1b isolates. Replication was severely debilitated, demonstrating that no compensatory residues were encoded within these genetically diverse sequences to increase the replication fitness of the mutated replicons. This work describes a transient replicon-based assay that can support the clin. development of compds. which target NS5B and demonstrates its utility by examining several patient-derived NS5B isolates for replication fitness and differential sensitivity to NS5B inhibitors.
RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:300396 CAPLUS
DN 142:373850
TI Preparation of amide type carboxamide derivatives as anticoagulants
IN Kawaguchi, Takayuki; Akatsuka, Hidenori; Morimoto, Masamichi; Watanabe, Tatsuya; Iijima, Toru; Murakami, Jun

PA Tanabe Seiyaku Co., Ltd., Japan
SO PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005030706	A1	20050407	WO 2004-JP13892	20040924
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004276128	A1	20050407	AU 2004-276128	20040924
CA 2538072	AA	20050407	CA 2004-2538072	20040924
EP 1666455	A1	20060607	EP 2004-788051	20040924
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
NO 2006001832	A	20060425	NO 2006-1832	20060425
PRAI JP 2003-334595	A	20030926		
WO 2004-JP13892	W	20040924		

OS MARPAT 142:373850
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

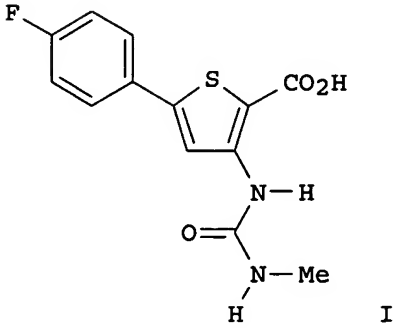
AB Title compds. I [X = N, CH; Y1, Y2 = H, halo, etc.; R1 = H, halo, etc.; R2 = -CO-R21-R22; R21 = alkylene, etc.; R22 = II, etc.; R23, R24 = alkyl, etc.; ring A = benzene, etc.] were prepared For example, acylation of 2-amino-N-(5-chloropyridin-2-yl)-5-methoxybenzamide with trans-4-(3-oxomorpholin-4-yl)cyclohexanecarboxylic acid using thionyl chloride afforded compound III. Compds. I are claimed useful for the treatment of diseases related to thrombosis (no data).
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:67469 CAPLUS
DN 142:309250
TI Inhibition of native hepatitis C virus replicase by nucleotide and non-nucleoside inhibitors
AU Ma, Han; Leveque, Vincent; De Witte, Anniek; Li, Weixing; Hendricks, Than; Clausen, Saundra M.; Cammack, Nick; Klumpp, Klaus
CS Roche Palo Alto LLC, Palo Alto, CA, 94304, USA
SO Virology (2005), 332(1), 8-15
CODEN: VIRLAX; ISSN: 0042-6822
PB Elsevier
DT Journal
LA English
AB A number of nucleotide and non-nucleoside inhibitors of HCV polymerase are currently under investigation as potential antiviral agents to treat HCV-infected patients. HCV polymerase is part of a replicase complex including the polymerase subunit NS5B together with other viral and host proteins and viral RNA. The RNA synthesis activity of the native

replicase complex was inhibited by 3'-deoxy-CTP, a chain-terminating nucleotide analog, but not inhibited by non-nucleoside NS5B polymerase inhibitors of three different structural classes. The HCV replicase was also resistant to heparin, a broad-spectrum, RNA-competitive polymerase inhibitor. Prebinding of the recombinant NS5B protein with a RNA template rendered the polymerase largely resistant to the inhibition by heparin and the non-nucleoside inhibitors, but did not affect the inhibitory potency of 3'-deoxy-CTP. Therefore, the HCV replicase showed a similar pattern of inhibitor sensitivity as compared to RNA-bound NS5B. These results suggest that the native HCV replicase complex represents a stable and productive polymerase-RNA complex. The allosteric non-nucleoside NS5B polymerase inhibitors are inactive against established HCV replicase but may function antagonistically with the formation of a productive enzyme-template complex.

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:41342 CAPLUS
DN 142:261352
TI Solution-phase parallel synthesis of a 1140-member ureidothiophene carboxylic acid library
AU Le Foulon, Francois-Xavier; Braud, Emmanuelle; Fabis, Frederic; Lancelot, Jean-Charles; Rault, Sylvain
CS Centre d'Etudes et de Recherche sur le Medicament de Normandie, Caen, 14032, Fr.
SO Journal of Combinatorial Chemistry (2005), 7(2), 253-257
CODEN: JCCHFF; ISSN: 1520-4766
PB American Chemical Society
DT Journal
LA English
OS CASREACT 142:261352
GI



I

AB A 1140-library of thiophene ureido acids, e.g., I, was synthesized by the reaction of a set of 60 primary or secondary amines with a number of 19 thieno[3,2-d]- or thieno[2,3-d][1,3]oxazine-2,4-diones. All compds. were obtained by a simple solution-phase combinatorial strategy on a 200-400-mg scale with over 70% yields and purities over 80%. Sixty library members chosen at random were successfully characterized by standard 1H NMR, HPLC/MS, and IR studies. Analgesic, antalgic, and antiinflammatory potential were investigated. The 1140-member ureidothiophene carboxylic acid library will be used in high-throughput screening assays.

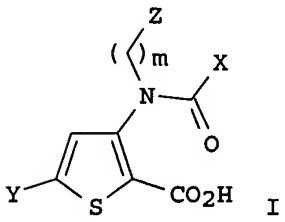
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:515507 CAPLUS

DN 141:71437
TI Preparation of thiophenecarboxylates for the treatment or prevention of flavivirus infections
IN Chan Chun Kong, Laval; Das, Sanjoy Kumar; Nguyen-Ba, Nghe; Halab, Liliane; Hamelin, Bettina; Pereira, Oswy Z.; Poisson, Carl; Proulx, Melanie; Reddy, Thumkunta Jagadeeswar; Zhang, Ming-qiang
PA Virochem Pharma Inc., Can.
SO PCT Int. Appl., 192 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004052885	A1	20040624	WO 2003-CA1912	20031209
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2508990	AA	20040624	CA 2003-2508990	20031209
	AU 2003291885	A1	20040630	AU 2003-291885	20031209
	US 2005009804	A1	20050113	US 2003-730272	20031209
	EP 1569929	A1	20050907	EP 2003-767343	20031209
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003016771	A	20051025	BR 2003-16771	20031209
	JP 2006510636	T2	20060330	JP 2004-557712	20031209
	CN 1795190	A	20060628	CN 2003-80109449	20031209
PRAI	US 2002-431964P	P	20021210		
	WO 2003-CA1912	W	20031209		

OS MARPAT 141:71437
GI



I

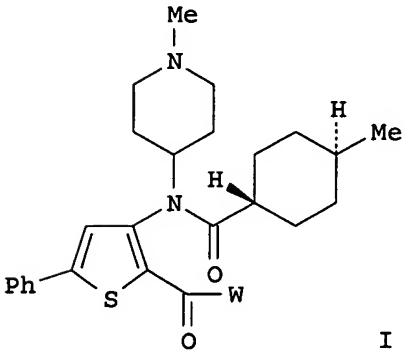
AB Title compds. (I; Z = 3-7 membered heterocyclyl, cycloalkyl; X = 3-10 membered cycloalkyl; Y = 6-10 membered aryl; m = 0, 1; when Y = Ph, X ≠ 4-methylcyclohexyl), were prepared Thus, 3-[[(2-carboxy-5-phenylthiophen-3-yl)-(4-methylcyclohexanecarbonyl)amino]methyl]piperidiniu m trifluoroacetate (preparation from 3-amino-5-phenylthiophene-2-carboxylate, 3-formyl-N-benzyloxycarbonylpiperidine, and trans-4-methylcyclohexanecarbonyl chloride given) inhibited HCV RNA-dependent RNA polymerase with IC50 <5 μM.

L12 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:515502 CAPLUS
DN 141:71435
TI Preparation of thiophene derivatives for the treatment of flavivirus

infections
IN Chan Chun Kong, Laval; Pereira, Oswy Z.; Nguyen-Ba, Nghe; Zhang, Ming-qiang; Das, Sanjoy Kumar; Poisson, Carl; Halab, Liliane; Reddy, Thumkunta Jagadeeswar
PA Virochem Pharma Inc., Can.
SO PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004052879	A1	20040624	WO 2003-CA1913	20031209
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003291886	A1	20040630	AU 2003-291886	20031209
US 2004192707	A1	20040930	US 2003-730273	20031209
PRAI US 2002-432019P	P	20021210		
WO 2003-CA1913	W	20031209		

OS MARPAT 141:71435
GI



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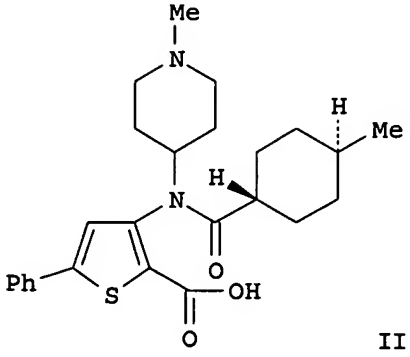


II

AB Title compds. I [W = alkyloxy, amino acid ester, etc.] are prepared For instance, Me 3-amino-5-phenylthiophenecarboxylate is reacted with 1-methyl-4-trimethylsilyloxy-1,2,3,6-tetrahydropyridine (dichloroethane, HOAc, NaBH(OAc)3) to give, after aqueous work-up, 3-((1-methylpiperidin-4-yl)amino)-5-phenylthiophene-2-carboxylic acid Me ester. This intermediate is acylated with the acid chloride of trans-4-methylcyclohexanecarboxylic acid. The resulting Me ester is saponified to give II. Bioavailability data is provided for several examples. I are useful for treating flaviviridae viral infection.

L12 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:51824 CAPLUS
DN 140:296861
TI Discovery of thiophene-2-carboxylic acids as potent inhibitors of HCV NS5B polymerase and HCV subgenomic RNA replication. Part 2: Tertiary amides
AU Chan, Laval; Pereira, Oswy; Reddy, T. Jagadeeswar; Das, Sanjoy K.; Poisson, Carl; Courchesne, Marc; Proulx, Melanie; Siddiqui, Arshad;

Yannopoulos, Constantin G.; Nguyen-Ba, Nghe; Roy, Caroline; Nasturica, Daniel; Moinet, Christophe; Bethell, Richard; Hamel, Martine; L'Heureux, Lucille; David, Maud; Nicolas, Olivier; Courtemanche-Asselin, Philippe; Brunette, Stephanie; Bilimoria, Darius; Bedard, Jean

CS Shire BioChem Inc., Laval, QC, H7V 4A7, Can.

SO Bioorganic & Medicinal Chemistry Letters (2004), 14(3), 797-800
CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science B.V.

DT Journal

LA English

AB Further SAR studies on the thiophene-2-carboxylic acids are reported. These studies led to the identification of a series of tertiary amides that show inhibition of both HCV NS5B polymerase in vitro and HCV subgenomic RNA replication in Huh-7 cells. Structural insights about the bioactive conformation of this class of mols. were deduced from a combination of modeling and transferred NOE (trNOE) studies.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:964347 CAPLUS

DN 138:24638

TI Preparation of thiophenecarboxylic acids and methods for the treatment or prevention of flaviviridae infections such as hepatitis C

IN Chan, Chun Kong Laval; Bedard, Jean; Das, Sanjoy Kumar; Nguyen Ba, Nghe; Pereira, Oswy Z.; Reddy, Thumkunta Jagadeeswar; Siddiqui, M. Arshad; Wang, Wuyi; Yannopoulos, Constantin

PA Shire Biochem Inc., Can.

SO PCT Int. Appl., 314 pp.
CODEN: PIXXD2

DT Patent

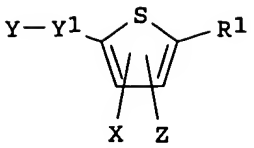
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002100851	A2	20021219	WO 2002-CA876	20020611
	WO 2002100851	A3	20030227		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2450007	AA	20021219	CA 2002-2450007	20020611
	EP 1401825	A2	20040331	EP 2002-742563	20020611
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2004116509	A1	20040617	US 2002-166031	20020611
	US 6881741	B2	20050419		
	BR 2002010357	A	20040629	BR 2002-10357	20020611
	JP 2005500288	T2	20050106	JP 2003-503618	20020611
	CN 1602308	A	20050330	CN 2002-815768	20020611
	ZA 2003009590	A	20040512	ZA 2003-9590	20031210
	US 2006142347	A1	20060629	US 2005-42442	20050126
PRAI	US 2001-296731P	P	20010611		
	US 2002-166031	A1	20020611		
	WO 2002-CA876	W	20020611		

OS MARPAT 138:24638

GI



I

AB The present invention provides novel thiophenes (shown as I; variables defined below; e.g. 3-[(2-chlorophenylsulfonyl)amino]-5-phenylthiophene-2-carboxylic acid) or pharmaceutically acceptable salts thereof useful for treating flaviviridae viral infection. For I: X = -NR3MR2, -JNR2R3; M = -SO2-, -S(O)-, -S-, -C(O)-, -C(S)-, -C(O)NR4-, -C(S)NR15-, -CHR15-, -C(:NR8)-, a bond; R4 is C1-6 alkyl; R8 = H, C1-12 alkyl, C2-12 alkenyl, C2-12 alkynyl, C6-14 aryl, C3-12 heterocycle, C3-12 heteroaralkyl, C6-16 aralkyl; and R15 = H or C1-6 alkyl; J = -C(:W)-, -CHR6-, -S-, -S(O)-, -SO2-; W = O, S or NR7, wherein R7 = H, C1-12 alkyl, C2-12 alkenyl, C2-12 alkynyl, C6-14 aryl, C3-12 heterocycle, C3-12 heteroaralkyl, C6-16 aralkyl; and R6 = H, C1-12 alkyl, C6-14 aryl or C6-16 aralkyl. Y1 = a bond, C1-6 alkyl, C2-6 alkenyl or C2-6 alkynyl; Y = COOR16, COCOOR5, P(O)ORaORb, S(O)OR5, S(O)2OR5, tetrazole, CON(R9)CH(R5)COOR5, CONR10R11, CON(R9)SO2R5, CONR9OH or halogen, wherein R9, R5, R10 and R11 = H, C1-12 alkyl, C2-12 alkenyl, C2-12 alkynyl, C3-12 heterocycle, C3-18 heteroaralkyl, C6-18 aralkyl; or R10 and R11 are taken together with the N to form a 3-10 membered heterocycle; Ra and Rb = H, C1-12 alkyl, C2-12 alkenyl, C2-12 alkynyl, C6-14 aryl, C3-12 heterocycle, C3-18 heteroaralkyl and C6-18 aralkyl; or Ra and Rb are taken together with the oxygens to form a 5-10 membered heterocycle. R16 = H, C1-12 alkyl, C2-12 alkenyl, C2-12 alkynyl, C6-14 aryl, C3-12 heterocycle, C3-18 heteroaralkyl and C6-18 aralkyl; provided that R16 is other than Me or Et; R1 = C2-12 alkyl, C2-12 alkenyl, C2-12 alkynyl, C6-14 aryl, C3-12 heterocycle, C3-18 heteroaralkyl or C6-18 aralkyl; R2 = C2-12 alkyl, C2-12 alkynyl, C6-14 aryl, C3-12 heterocycle, C3-18 heteroaralkyl, or C6-18 aralkyl; R3 = H, C1-12 alkyl, C2-12 alkenyl, C2-12 alkynyl, C6-14 aryl, C3-12 heterocycle, C3-18 heteroaralkyl or C6-18 aralkyl; Z = H, halogen, C1-6 alkyl; with provisos. Twenty-five example prepns. of I are included. For example, 3-[(2-chlorophenylsulfonyl)amino]-5-phenylthiophene-2-carboxylic acid was prepared by adding 1 N aqueous solution of LiOH.H2O (64.378 mmol) to a suspension of 3-amino-5-phenylthiophene-2-carboxylic acid Me ester (21.459 mmol) in a mixture of THF:MeOH:H2O (3:2:1, 75 mL) and stirring at 85° (external temperature) for 4 h. Solvents were removed under reduced pressure and the residue was partitioned between H2O and EtOAc. The H2O layer was separated and acidified with 1 N HCl solution and then EtOAc was added to it. The formed intermediate 3-amino-5-phenylthiophene-2-carboxylic acid (4.15 g, 88%; 0.457 mmol) was taken in a mixture of dioxane and H2O (1:1, 25 mL) and then Na carbonate (2.285 mmol) and 1-chlorophenylsulfonyl chloride (1.369 mmol) were added. The reaction mixture was stirred at room temperature for 12 h and eventually 69% of 3-[(2-chlorophenylsulfonyl)amino]-5-phenylthiophene-2-carboxylic acid was obtained. Results of evaluation of .apprx.580 I in the hepatitis C virus (HCV) RNA-dependent RNA polymerase and/or anti-helicase assays are tabulated.